

**ABSTRACT**

A system for the production of a blood component composition is provided. The system includes a centrifuge having a blood reservoir for receiving and separating a blood sample into multiple components; a dispenser disposed outside of the centrifuge having a first collection chamber containing an activation agent and a second collection chamber containing one or more medicinal agents; means for removing a first portion at least one separated blood component from the centrifuge to the first container and a second portion to the second collection chamber, wherein the first collection chamber activates the first portion and stores the resulting clot and thrombin; a filter for separating the thrombin from the clot; and a nozzle for entraining and mixing the thrombin with the second portion containing the one or more medicinal components.